

# (12) UK Patent Application (19) GB (11) 2 367 768 (13) A

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(51) INT CL<sup>7</sup>

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**B1C CAU**  
**U1S S1382**

(56) Documents Cited

**US 5743636 A**

(58) Field of Search

**INT CL<sup>7</sup> B28C 5/44**

**Online databases: EPODOC, JAPIO, WPI**

(54) Abstract Title

**A mat or sheet for mixing cement by hand**

(57) The sheet is flat and made of lime-resistant, reinforced, heavy gauge plastic fabric having hand holds or grips around the edge. Sand and cement powder are mixed on the sheet by raising the edge of the sheet whilst supported on the ground so that the cement components roll together. The process is repeated following the addition of water.

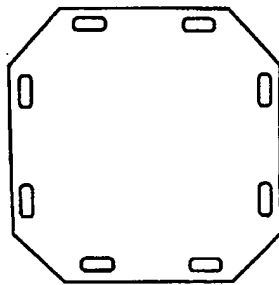


Fig. 6

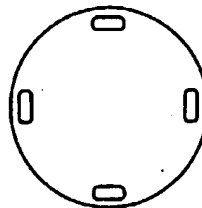


Fig. 7

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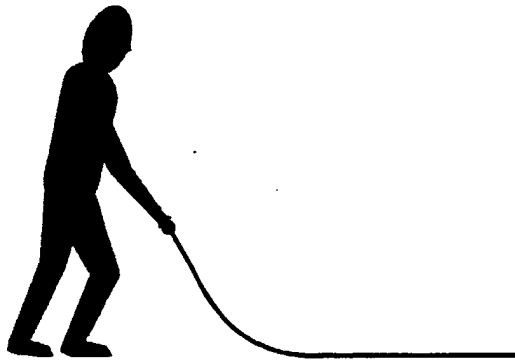


Fig. 1



Fig. 2



Fig. 3

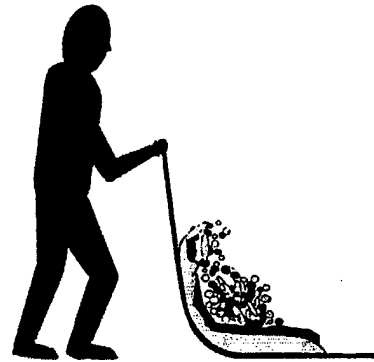


Fig. 4

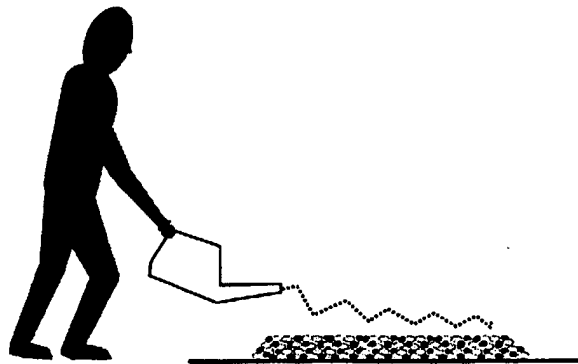


Fig. 5

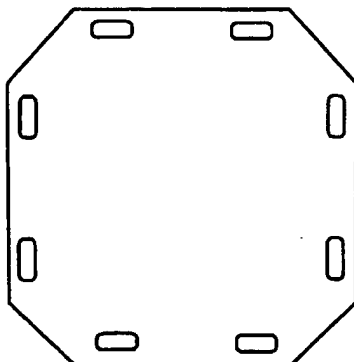


Fig. 6

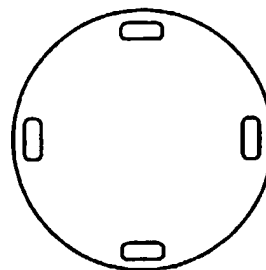


Fig. 7

## CEMENT MIXER.

### *For the easier mixing of mortars*

The conventional mixing of small to medium quantities of mortar needs a suitable area, hand tools and sometimes mechanical devices as well. They are all labour intensive and by nature leave mess and waste. Cleaning up is again messy and time consuming.

This method and invention for mixing mortar removes most of the labour. It is also extremely fast and leaves little mess or waste. It can be used on most flat surfaces including tables, carpets, patios or lawns and is very easy to clean. It can also be used in or on suitable vehicles and is ideal for pre-mixed mortars. Two or more people can make mixes even faster .

This invention mixes cement with sand or aggregates by rolling or tumbling them together as opposed to constantly shoveling them directly, or indeed straight into a mixer.

The invention is a sheet of lime resistant, reinforced, heavy gauge plastic fabric with hand-holds or grips around it's edges.

The use of this invention and method follows in conjunction with illustrations.

- 1) Lay the mixer onto the chosen surface, Fig 1.
- 2) Spread sand or ballast over it's middle, Fig 2.
- 3) Spread a correct gauge of cement on top, Fig 3.
- 4) Smoothly lift and raise any side of the mixer to roll the mix together, Fig 4.  
Repeat a few times changing holds & side, until uniformly mixed.
- 5) Spread this dry mix out flat and wet using a watering can, Fig 5. Repeat like 4) above, adding water as required to obtain the correct consistency.
- 6) When the mortar has been cleared away, sweep up and wash down.

For pre-mixed dry mortars, just spread, wet and roll as required.

Figures 6 & 7 are plan views of mixers that have been successfully used.

## CLAIMS

- 1) A cement mixer comprising a sheet of lime resistant, reinforced, heavy gauge plastic fabric with hand-holds or grips around it's edges.
- 2) A cement mixer as claimed in claim 1 above which uses a different method of mixing mortar, namely by the rolling or folding of powders together.

**Amendments to the claims have been filed as follows**

- 1) A cement mixer comprising a flat sheet of lime resistant, reinforced, heavy gauge plastic fabric with hand-holds or grips around it's edges.
- 2) A cement mixer as claimed in claim 1 above which uses a different method of mixing mortar, namely by the rolling or folding of powders together.

**INVESTOR IN PEOPLE**

**Application No:** GB 0022894.0  
**Claims searched:** 1-2

**Examiner:** Graham Russell  
**Date of search:** 14 November 2000

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

**UK Patent Office collections, including GB, EP, WO & US patent specifications, in:**

UK C1 (Ed.R):

**Int Cl (Ed.7): B28C 5/44**

**Other:** Online databases: EPODOC, JAPIO, WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	US 5743636 (PAYNE) see Figs 1,3,4 & column 3 lines 3-18	1,2

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.